Issuance Date: April 4, 2006
Effective Date: May 1, 2006
Expiration Date: April 30, 2011

STATE WASTE DISCHARGE PERMIT NUMBER ST 5379

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
Eastern Regional Office

In compliance with the provisions of the
State of Washington Water Pollution Control Law
Chapter 90.48 Revised Code of Washington, as amended,
authorizes

City of Warden

201 S. Ash St.

Warden, WA 98857

to discharge wastewater in accordance with the special and general conditions which follow.

Facility Location: northwest portion of the city; bounded on the east by Road U S.E., state hiway 170 on the south, and Burlington Northern railroad on the west.	Discharge Location: Approximately 400 acres; SE ¼ Sec. 9; E ½ Sec. 17; NE ¼ Sec. 20, Township 17N, Range 30 EWM
Industry Type: Municipally owned combined food processing industrial wastewater treatment facility	Latitude: 48° 58' 40" N Longitude: 119° 03' 10" W
SIC Code: 2038; 2026	

James M. Bellatty
Water Quality Section Manager
Eastern Regional Office
Washington State Department of Ecology

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GENERAL CONDITIONS

SUMMARY OF PERMIT REPORT SUBMITTALS

Refer to the Special and General Conditions of this permit for additional submittal requirements.

Permit Section	Submittal	Frequency	First Submittal Date
S3.A.	Discharge Monitoring Report	Monthly	June 15, 2006
S5.A.	Operations and Maintenance Manual	1 / permit cycle	January 1, 2007
S5.E.	Flow Meter Repair Plan	1/permit cycle	June 1, 2006
S5.F.	Aeration Basin Repair Plan	1/permit cycle	June 1, 2006
S5.G	Process Monitoring Plan Implementation	1/permit cycle	February 15, 2007
S6.C.	Solid Waste Control Plan Update	1/permit cycle	April 1, 2007
S7	Engineering Report – Addendum	1/permit cycle	December 1, 2007
S8	Spill Plan – Update	1/permit cycle	September 1, 2006
S9	Hydrogeologic Study - Addendum	1/permit cycle	September 1, 2008
S10	Irrigation and Crop Management Plan	1/year	May 1, 2006
G7.	Application for permit renewal	1/permit cycle	October 30, 2010

SPECIAL CONDITIONS

S1. DISCHARGE LIMITATIONS

All discharges and activities authorized by this permit shall be consistent with the terms and conditions of this permit. The discharge of any of the following pollutants more frequently than, or at a concentration in excess of, that authorized by this permit shall constitute a violation of the terms and conditions of this permit.

Beginning on the effective date and lasting through the expiration date of this permit, the Permittee is authorized to apply wastewater to land via spray irrigation at agronomic rates, for nitrogen and water, and at rates for other wastewater constituents that are protective of the background ground water quality.

The Permittee is authorized to apply wastewater for final treatment on the following designated irrigation lands:

> 400 acres located along the NW and SW boundaries of the city in the: SE ¼ Sec. 9, E ½ Sec. 17. and NE ¼ Sec. 20, T. 17N, R. 30 EWM.

The sprayfield system must be operated by the Permittee so as to protect the existing and future beneficial uses of the ground water and not cause a violation of the ground water standards (WAC 173-200).

S2. MONITORING REQUIREMENTS

A. Influent Wastewater Monitoring

The sampling point for the chemical test parameters will be at the above ground concrete access box to the main influent line located just downstream of the East Low Canal Crossing.

Flows shall be monitored at the in-line flow meter located at Pumphouse #2.

The Permittee shall monitor the influent wastewater according to the following schedule:

Parameter	Units	Sampling Frequency	Sample Type
Flow (avg, max; total annual)	MGD; MG	Continuous [1]	Flow meter
BOD_5 (avg, max; total annual)	mg/L, lbs/day; pounds	2/ month	24hr composite
TSS (avg, max)	mg/L, lbs/day	2/ month	24hr composite
pH (min, max)	Standard Units	1/ week	Grab
TKN (as N) (avg, max; total annual)	mg/L, lbs/day; pounds	2/ month	24hr composite
Ethylene dibromide	ug/L	2/ year [2]	Grab[3]

[1] Continuous means uninterrupted except for brief lengths of time for calibration, for power failure, or for unanticipated equipment repair or maintenance. Sampling shall be taken daily when continuous monitoring is not possible.

[2] 2/ year means April and November. **The Permittee shall inform their permit manager, by phone or email, at least two week prior to the date when the EDB samples will be taken.**

[3] Samples will be collected in a container and transported in a manner that minimizes the volatile loss of EDB.

B. Irrigated Wastewater Monitoring

All wastewater that is pumped to each sprayfield shall be sampled according to the following schedule. The sampling point shall be located at a place that is representative of the quantity and quality of the water being spray irrigated; cell 8, cell 5A, or 200 acre mixing pond.

Flows shall be monitored to each of the sprayfields; 125, 35, 30, and each sprayfield that comprise the 200 acre site. The 200 acre southern sprayfields are comprised of four fields. Each will be given an identification name and flows and loads to each will be measured and reported.

The Permittee shall monitor all wastewater that is spray irrigated according to the following schedule. Samples will be collected whenever wastewater is applied to the fields, no matter what the volume. Values will be reported in the annual Irrigation and Crop Management Plan; Section S10.

Parameter	Units	Sampling Frequency	Sample Type
Flow (avg. and max)	MGD	Continuous	Flow meter
Total BOD_5	mg/L, lbs/day	1 / month	Grab
Total soluble BOD_5	mg/L, lbs/day	1 / month	Grab
pH	s.u.	1 / month	Grab
TKN (Total annual)	mg/L, lbs/day; lbs	1 / month	Grab
Total dissolved fixed solids	mg/L, lbs/day	1 / month	Grab
Ethylene dibromide	ug/L	2/ year [1]	Grab[2]

[1] 2/ year means April and November. **The Permittee shall inform their permit manager, by phone or email, at least two weeks prior to the date when the EDB samples will be taken.**

[2]Samples will be collected in a container and transported in a manner that minimizes the volatile loss of EDB.

C. Supplemental Irrigation Water Monitoring

The sampling points for the supplemental irrigation water monitoring shall be the wells that supply water to each of the southern pivots that comprise the 200 acre site and the East Low Canal.

Flows shall be monitored to each of the sprayfields; 125, 35, 30, and 200 acre sites. The 200 acre southern sprayfields are comprised of four fields. Each will be given an identification name and flows to each will be measured and reported.

The results of the flow and chemical measurements shall be reported in each annual Irrigation and Crop Management Plan; Section S10.

Parameter	Units	Sampling Frequency	Sample Type
Flow	Daily (MGD)	continuous	Flow meter, pump time recorder, or weir
TKN (as N)	mg/L	Once / permit cycle [1]	Grab
NO_3 (as N)	mg/L	Once / permit cycle [1]	Grab
Total Dissolved Solids	mg/L	Once / permit cycle [1]	Grab
[1] Once / permit cycle shall mean in July 2006			

D. Surface Water Monitoring

The sampling points for surface water shall be at the drainage ditch, lagoon 5, and East Low Canal.

The Permittee shall monitor the surface water according to the following schedule:

Parameter	Units	Sample Location	Sampling Frequency	Sample Type
TKN (as N)	mg/L	Drain Ditch [1]	6/ year [2]	Grab
Nitrate (as N)	mg/L		6/ year [2]	Grab
Total Dissolved Solids	mg/L		6/ year [2]	Grab
Sodium	mg/L	Drain Ditch; Lagoon 5; East Low Canal [4]	3/ year [3]	Grab
Potassium	mg/L		3/ year [3]	Grab
Calcium	mg/L		3/ year [3]	Grab
Magnesium	mg/L		3/ year [3]	Grab
Chloride	mg/L		3/ year [3]	Grab

Parameter	Units	Sample Location	Sampling Frequency	Sample Type
Sulfate	mg/L		3/ year [3]	Grab
Bicarbonate	mg/L		3/ year [3]	Grab
Water Level Elevation	Nearest 0.01 ft above mean sea level	East Low Canal, Lagoon 5	Monthly [5]	Grab

[1] Drain ditch samples shall be collected at the earthen dam

[2] 6/ year shall mean: January, March, May, July, September, November

[3] 3/ year shall mean: May, July, September

[4] East Low Canal samples will be collected at the Road U bridge.

[5] Monthly means March through October.

E. Piezometer Monitoring

The Permittee shall monitor the piezometers (A, B, C) according to following schedule. Elevations shall be taken from each piezometer. If necessary, a composite sample can be taken for the cation and anion analysis.

Parameter	Units	Sampling Frequency	Sample Type
Water Level Elevation	Nearest 0.01 ft above mean sea level	Monthly [1]	Grab
Sodium	mg/L	6/ year [2]	Grab or composite
Calcium	mg/L	6/ year [2]	Grab or composite
Potassium	mg/L	6/ year [2]	Grab or composite
Magnesium	mg/L	6/ year [2]	Grab or composite
Chloride	mg/L	6/ year [2]	Grab or composite
Sulfate	mg/L	6/ year [2]	Grab or composite
Bicarbonate	mg/L	6/ year [2]	Grab or composite

[1] Monthly means March through October

[2] 6/year means: January, March, May, July, September, November

F. Soil Monitoring

The Permittee shall perform soil monitoring on each sprayfield twice per year. The sampling sites shall be located so as to be representative of each irrigation site or as represented in the crop management plan. If possible, sampling sites shall remain in the same vicinity from year to year. Testing at each sampling site shall be done according to the following schedule. Results shall be submitted annually with the annual Irrigation and Crop Management Plan; Section S10.

Composite samples will be taken from the specified depths (or until auger refusal) and will be from a minimum of four (4) cores. Samples will be collected at a time that best represents soil conditions at the beginning and end of the crop growing season.

The Permittee shall monitor the soils in the sprayfields according to the following schedule:

Parameter	**Units**	**Sample Point**	**Depth Increments[1]**
Exchangeable sodium percentage	%	Each field	0.5, 1, 1.5, 2 feet
Cation exchange capacity	meq/100g	Each field	0.5, 1, 1.5, 2 feet
Organic matter	%	Each field	0.5, 1, 1.5, 2 feet
Total Phosphorus (as P)	mg/Kg	Each field	0.5, 1, 1.5, 2 feet
pH	mg/Kg	Each field	0.5, 1, 1.5, 2 feet
Sodium	meq/100g	Each field	0.5, 1, 1.5, 2 feet
Calcium	meq/100g	Each field	0.5, 1, 1.5, 2 feet
Magnesium	meq/100g	Each field	0.5, 1, 1.5, 2 feet
Potassium	mg/Kg	Each field	0.5, 1, 1.5, 2 feet
TKN (as N)	mg/Kg	Each field	1, 2, 3, 4, 5 feet
Nitrate (as N)	mg/Kg	Each field	1, 2, 3, 4, 5 feet
Soluble Salts	mmhos/cm	Each field	1, 2, 3, 4, 5 feet

[1]Depth (inches) vs. Depth increment (ft.) for composite samples:

0 - 6”	0.5		
6-12”	1	24 - 36”	3
12 - 18”	1.5	36 - 48”	4
18 - 24”	2	48 - 60”	5

G. Crop Monitoring

The Permittee shall perform monitoring for the grain/grass-type of crops (alfalfa; wheat; mint, etc.) on each field, once per harvest. Composite samples will be comprised of at least ten (10) random samples collected from each field. Values will be reported in the annual Irrigation and Crop Management Plan.

Parameter	**Units**
Crop production	dry tons/ac
Moisture content	%
Total Nitrogen [1]	mg/Kg (dry wt)
Total Phosphorus (as P)	mg/Kg (dry wt)
NO_3 (as N)	mg/Kg (dry wt)
Ash weight	mg/Kg (dry wt)
Bicarbonate	mg/Kg (dry wt)
[1] TN = TKN + NO_3	

H. Sampling and Analytical Procedures

Samples and measurements taken to meet the requirements of this permit shall be representative of the volume and nature of the monitored parameters, including representative sampling of any unusual discharge or discharge condition, including bypasses, upsets and maintenance-related conditions affecting effluent quality.

Ground water sampling shall conform to the latest protocols in the *Implementation Guidance for the Ground Water Quality Standards*, (Ecology 1996).

Sampling and analytical methods used to meet the water and wastewater monitoring requirements specified in this permit shall conform to the latest revision of the *Guidelines Establishing Test Procedures for the Analysis of Pollutants* contained in 40 CFR Part 136 or to the latest revision of *Standard Methods for the Examination of Water and Wastewater* (APHA), unless otherwise specified in this permit or approved in writing by the Department of Ecology (Department).

All soil analysis and reporting will be in accordance with *Laboratory Procedures*, Soil Testing Laboratory, Washington State University, November 1981.

I. Flow Measurement

Appropriate flow measurement devices and methods consistent with accepted scientific practices shall be selected and used to ensure the accuracy and reliability of measurements of the quantity of monitored flows. The devices shall be installed, calibrated, and maintained to ensure that the accuracy of the

measurements are consistent with the accepted industry standard for that type of device. Frequency of calibration shall be in conformance with manufacturer's recommendations and at a minimum frequency of at least one calibration per year. Calibration records shall be maintained for at least three years.

J. Laboratory Accreditation

All monitoring data required by the Department shall be prepared by a laboratory registered or accredited under the provisions of, *Accreditation of Environmental Laboratories*, Chapter 173-50 WAC. Flow and pH are exempt from this requirement. pH shall be accredited if the laboratory must otherwise be registered or accredited.

Crops and soils testing have not been included in the accreditation program. Crops and soils data shall be provided by a reputable agricultural test lab that is an active participant in a nationally recognized agricultural laboratory proficiency testing program.

S3. REPORTING AND RECORDKEEPING REQUIREMENTS

The Permittee shall monitor and report in accordance with the following conditions. The falsification of information submitted to the Department shall constitute a violation of the terms and conditions of this permit.

A. Reporting

The first monitoring period begins on the effective date of the permit. Monitoring results shall be submitted monthly. Monitoring data obtained during the previous month shall be summarized and reported on a form provided, or otherwise approved, by the Department, and be received no later than the 15th day of the month following the completed reporting period, unless otherwise specified in this permit. The report(s) shall be sent to:

Department of Ecology
Water Quality Permit Coordinator
4601 N. Monroe St.
Spokane, Washington 99205-1295

Discharge Monitoring Report forms must be submitted monthly whether or not the facility was discharging. If there was no discharge or the facility was not operating during a given monitoring period, submit the form as required with the words "No Discharge" entered in place of the monitoring results.

B. Records Retention

The Permittee shall retain records of all monitoring information for a minimum of three years. Such information shall include all calibration and maintenance records and all original recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit. This period of retention shall be extended

during the course of any unresolved litigation regarding the discharge of pollutants by the Permittee or when requested by the Director.

C. Recording of Results

For each measurement or sample taken, the Permittee shall record the following information: (1) the date, exact place and time of sampling; (2) the individual who performed the sampling or measurement; (3) the dates the analyses were performed; (4) who performed the analyses; (5) the analytical techniques or methods used; and (6) the results of all analyses.

D. Additional Monitoring by the Permittee

If the Permittee monitors any pollutant more frequently than required by this permit using test procedures specified by Condition S2. of this permit, then the results of this monitoring shall be included in calculation and reporting of the data submitted in the Permittee's self-monitoring reports.

E. Noncompliance Notification

In the event the Permittee is unable to comply with any of the permit terms and conditions due to any cause, the Permittee shall:

1. Immediately take action to stop, contain, and cleanup unauthorized discharges or otherwise stop the violation, and correct the problem;

2. Repeat sampling and analysis of any violation and submit the results to the Department within 30 days after becoming aware of the violation;

3. Immediately notify the Department of the failure to comply; and

4. Submit a detailed written report to the Department within thirty days, unless requested earlier by the Department, describing the nature of the violation, corrective action taken and/or planned, steps to be taken to prevent a recurrence, results of the resampling, and any other pertinent information.

Compliance with these requirements does not relieve the Permittee from responsibility to maintain continuous compliance with the terms and conditions of this permit or the resulting liability for failure to comply.

F. Maintaining a Copy of This Permit

A copy of this permit shall be kept at the facility and be made available upon request to Ecology inspectors.

S4. FACILITY LOADING

Design Criteria

Flows or waste loadings of the following design criteria for the permitted treatment facility shall not be exceeded:

Total annual hydraulic load:	398 MG
Average flow for the maximum month:	1.6 MGD
BOD_5 influent load for maximum month:	35,000 lbs/day
Total nitrogen load for maximum month:	2200 lbs/day
Total annual nitrogen load:	510,000 lbs
TSS influent load for the maximum month:	6600 lbs/day

S5. OPERATION AND MAINTENANCE

The Permittee shall at all times be responsible for the proper operation and maintenance of any facilities or systems of control installed to achieve compliance with the terms and conditions of the permit.

A. Operations and Maintenance Manual

No later than January 1, 2007, an Operations and Maintenance (O&M) Manual shall be prepared by the Permittee in accordance with WAC 173-240-150 and be submitted to the Department for approval.

The O&M Manual shall be reviewed by the Permittee at least annually. All manual changes or updates shall be submitted to the Department whenever they are incorporated into the manual. The approved operation and maintenance manual shall be kept available at the permitted facility.

The operation and maintenance manual shall contain the treatment plant process control monitoring schedule. All operators shall follow the instructions and procedures of this manual.

In addition to the requirements of WAC 173-240-150(1) and (2), the manual shall include:

1. Emergency procedures for facility shutdown and cleanup in event of wastewater system upset or failure, or transmission pipeline leak;

2. Irrigation system operational controls and procedures including pumps, flow meters, and conveyance systems;

3. Wastewater system maintenance procedures including aerators, wastewater samplers, and conveyance systems;

4. Sampling protocols for compliance with the testing and reporting requirements in the wastewater discharge permit.

B. Bypass Procedures

The Permittee shall immediately notify the Department of any spill, overflow, or bypass from any portion of the treatment system.

The bypass of wastes from any portion of the treatment system is prohibited unless one of the following conditions (1, 2, or 3) applies:

1. *Unavoidable Bypass* -- Bypass is unavoidable to prevent loss of life, personal injury, or severe property damage. "Severe property damage" means substantial physical damage to property, damage to the treatment facilities which would cause them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass.

   If the resulting bypass from any portion of the treatment system results in noncompliance with this permit the Permittee shall notify the Department in accordance with condition S3.E "Noncompliance Notification."

2. *Anticipated Bypass That Has The Potential to Violate Permit Limits or Conditions* -- Bypass is authorized by an administrative order issued by the Department. The Permittee shall notify the Department at least 30 days before the planned date of bypass. The notice shall contain a description of the bypass and its cause; the duration of the bypass, including exact dates and times; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the bypass. The Department will consider the following prior to issuing an administrative order:

   a. If the bypass is necessary to perform construction or maintenance-related activities essential to meet the requirements of the permit.

   b. If there are feasible alternatives to bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, stopping production, maintenance during normal periods of equipment down time, or transport of untreated wastes to another treatment facility.

   c. If the bypass is planned and scheduled to minimize adverse effects on the public and the environment.

   After consideration of the above and the adverse effects of the proposed bypass and any other relevant factors, the Department will approve or deny the request. The public shall be notified and given an opportunity to comment on bypass incidents of significant duration, to the extent feasible. Approval of a request to bypass will be by administrative order issued by the Department under RCW 90.48.120.

3. B*ypass For Essential Maintenance Without the Potential to Cause Violation of Permit Limits or Conditions* -- Bypass is authorized if it is for essential maintenance and does not have the potential to cause violations of limitations or other conditions of the permit, or adversely impact public health as determined by the Department prior to the bypass.

C. Irrigation Land Application

1. The system shall be operated so as to protect the existing and future beneficial uses of the ground water and not cause a violation of the ground water standards.

2. There shall be no runoff of wastewater applied to land by spray irrigation to any surface waters of the state or to any land not owned by or under control of the Permittee.

3. The Permittee shall use recognized good practices, and all available and reasonable procedures to control odors from the land application system. When notified by the Department, the Permittee shall implement measures to reduce odors to a reasonable minimum.

4. The wastewater shall not be applied to the irrigation lands in quantities that:

   a. Significantly reduce or destroy the long-term infiltration rate of the soil.

   b. Would cause long-term anaerobic conditions in the soil.

   c. Would cause ponding of wastewater and produce objectionable odors or support insects or vectors.

   d. Would cause leaching losses of constituents of concern beyond the treatment zone or in excess of the approved design. Constituents of concern are constituents in the wastewater, partial decomposition products, or soil constituents that would alter ground water quality in amounts that would affect current and future beneficial uses.

5. The Permittee shall maintain all irrigation agreements for lands not owned for the duration of the permit cycle. Any reduction in irrigation lands by termination of any irrigation agreements may result in permit modification or revocation. The Permittee shall immediately inform the Department in writing of any proposed changes to existing agreements.

D. Best Management Practices

1. A viable and healthy cover crop shall be maintained on all fields that receive wastewater.
2. Every effort shall be made to follow annual crops with deep-rooted alfalfa, wheat, or a perennial crop to maximize the uptake of residual soil nitrate.
3. Adjust irrigation plans during high precipitation events to minimize percolate losses.
4. Use supplemental irrigation water and/or winter precipitation to meet the Leaching Requirement for each field.
5. Operate each field so that the three year running average end-of-crop-year soil profile nitrate concentration is stable or declining.

E. Flow Meters

No later than June 1, 2006 the Permittee shall inform Ecology, in writing, what steps will be taken to repair or replace all non-functional flow meters located throughout the lagoon/sprayfield system.

The flow meters will be functional no later than January 1, 2007.

F. Aeration Basin – Repair

No later than June 1, 2006 the Permittee shall submit a plan to Ecology, which will describe the steps that will be taken to repair the erosion of the inner walls of the aeration basin and bring the aeration basin to a fully operational status.

All repairs shall be completed by January 1, 2007.

G. Process Monitoring Plan

Beginning on February 1, 2007, the Permittee shall implement the 2004 Process Monitoring Plan. The two six-week sampling periods will begin on February 1 and July 1, 2007.

No later than February 15, 2007, the Permittee shall inform Ecology, in writing, that the 2004 Process Monitoring Plan has been implemented.

S6. SOLID WASTE DISPOSAL

A. Solid Waste Handling

The Permittee shall handle and dispose of all solid waste material in such a manner as to prevent its entry into state ground or surface water.

B. Leachate

The Permittee shall not allow leachate from its solid waste material to enter state waters without providing all known, available and reasonable methods of treatment, nor allow such leachate to cause violations of the State Surface Water Quality Standards, Chapter 173-201A WAC, or the State Ground Water Quality Standards, Chapter 173-200 WAC. The Permittee shall apply for a permit or permit modification as may be required for such discharges to state ground or surface waters.

C. Solid Waste Control Plan

No later than April 1, 2007, the Permittee shall submit a solid waste control plan to the Department. This plan shall include a description of the method of disposal of the solids that are removed from the solids settling ponds.

This plan shall not be at variance with any approved local solid waste management plan. Any proposed revision or modification of the solid waste handling plan must be submitted to the Department. The Permittee shall comply with the plan and any modifications thereof.

The Permittee shall submit all proposed revisions or modifications to the solid waste control plan to the Department.

S7. ENGINEERING REPORT – ADDENDUM

No later than December 1, 2007, the Permittee shall submit to the Department an addendum to the October 1999 engineering report that describes the level of treatment for each treatment unit process prior to land application, and updates the treatment efficiencies that were used in the October 1999 engineering report.

The addendum shall be based on the information gathered from the sampling according to implementing the 2004 Process Monitoring Plan; Section S5.F.

S8. SPILL PLAN - UPDATE

No later than September 1, 2006, the Permittee shall submit to the Department an update to the existing Spill Control Plan that was prepared in March 2003. The update shall include a list of all dischargers to the system and contacts, and Ecology's 24-hr spill response number; 509.329.3400

S9. HYDROGEOLOGIC STUDY - ADDENDUM

No later than September 1, 2008, the Permittee shall submit to the Department for review and comment an addendum to the land application/lagoon site hydrogeologic study that re-evaluates the validity of the closed ground water basin model that is contained in the 1998 hydrogeologic report.

The addendum shall:

1. Report the location and installation information for the additional ground water wells that have been installed in the northern area of the site.

2. Include all physical and chemical information collected through June 2008 from the piezometers, drain, lagoon 5, and the East Low Canal.

S10. IRRIGATION AND CROP MANAGEMENT PLAN

An Irrigation and Crop Management Plan shall be submitted annually by May 1st for Department review. The plan shall generally conform with *Guidelines for Preparation of Engineering Reports for Industrial Wastewater Land Application Systems*, Ecology 1993. The plan must be prepared by a soil scientist. The plan shall include the following elements:

A. Annual Summary of Farm Operations for Previous Year

This summary shall include:

1. For each crop grown, the total acreage and quantity harvested.

2. Calculated balances for nutrients, salts, or other design limiting parameters. The calculations shall include crop consumptive use, process wastewater and supplemental water loadings of nutrients, salts, or other design limiting parameters, and contributions from commercial fertilizers applied.

   For crops that are less "grain/grass" like (i.e., non-forage crops) and have a large amount of vegetative growth (e.g., corn, potatoes), the use of literature values for nutrient uptake is acceptable. Otherwise, crop monitoring results shall be used in the balance determinations.

   The total nitrogen and salt loads to each field (process wastewater + supplemental water + fertilizer) shall be compared to the estimated values presented in the previous year's irrigation and crop plan.

3. Calculated water balance. The calculations shall include irrigation system efficiency and application uniformity, the quantity of supplemental irrigation water and process wastewater applied, precipitation, crop consumptive use, and water stored in the soil profile outside the normal growing season.

   The amount of additional water added to control soil salinity (Leaching Fraction) shall be reported for each field. These values shall be compared to the estimated Leaching Requirement values given in the previous year's irrigation and crop plan.

The water load to each field shall be compared to the estimated values presented in the previous year's irrigation and crop plan.

4. Soil testing results. A summary of the soil testing results (Section S2.F) shall be submitted and discussed as part of the annual Irrigation and Crop Management Plan.

   The end-of-year soil profile nitrate shall be presented for each field to show the trend in concentrations for at least three (3) years. The first year of the trend analysis shall be 2006.

5. Crop testing results. A summary of the crop testing results (Section S2.G) shall be submitted and discussed as part of the annual plan.

B. Cropping Schedule for Upcoming Year

This schedule shall include:

1. Crop Management. A description of the proposed acreage for each crop, cultivation and harvesting requirements, expected crop yields, and methods for establishing a crop, and proposed schedule for herbicide, pesticide, and fertilizer application.

2. Irrigation Management. A description of the frequency and timing of wastewater and supplemental irrigation water application (including harvest and non-harvest periods), and recommended rest cycles for wastewater application where organic or hydraulic loading is a concern.

   There shall be a discussion of the proposed irrigation management that will include an estimation of any planned leaching to control soil salinity and the plan to meet the requirement using supplemental water and/or precipitation.

3. Nitrogen and water loading. A determination of estimated values for the total nitrogen and water loading to each field will be made based on the requirements of the proposed crop. The estimated values shall consider the amount of nitrogen, salts, and water stored in the soils. The estimated load values will represent the loading capacity of the site for the up-coming year.

4. Leaching Requirement. Estimates will be made for the amounts of additional irrigation water that will be added to each sprayfield to control soil salinity; i.e., Leaching Requirement.

GENERAL CONDITIONS

G1. SIGNATORY REQUIREMENTS

All applications, reports, or information submitted to the Department shall be signed as follows:

A. All permit applications shall be signed by either a principal executive officer or ranking elected official.

B. All reports required by this permit and other information requested by the Department shall be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:

1. The authorization is made in writing by the person described above and is submitted to the Department at the time of authorization, and

2. The authorization specifies either a named individual or any individual occupying a named position.

C. Changes to authorization. If an authorization under paragraph B.2. above is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization must be submitted to the Department prior to or together with any reports, information, or applications to be signed by an authorized representative.

D. Certification. Any person signing a document under this section shall make the following certification:

"I certify under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

G2. RIGHT OF ENTRY

Representatives of the Department shall have the right to enter at all reasonable times in or upon any property, public or private, for the purpose of inspecting and investigating conditions relating to the pollution or the possible pollution of any waters of the state. Reasonable times shall include normal business hours; hours during which production, treatment, or discharge occurs; or times when the Department suspects a violation requiring immediate inspection. Representatives of the Department shall be allowed to have access to, and copy at reasonable cost, any records required to be kept under terms and conditions of the permit; to inspect any monitoring equipment or method required in the permit; and to sample the discharge, waste treatment processes, or internal waste streams.

G3. PERMIT ACTIONS

This permit shall be subject to modification, suspension, or termination, in whole or in part by the Department for any of the following causes:

A. Violation of any permit term or condition;

B. Obtaining a permit by misrepresentation or failure to disclose all relevant facts;

C. A material change in quantity or type of waste disposal;

D. A material change in the condition of the waters of the state; or

E. Nonpayment of fees assessed pursuant to RCW 90.48.465.

The Department may also modify this permit, including the schedule of compliance or other conditions, if it determines good and valid cause exists, including promulgation or revisions of regulations or new information.

G4. REPORTING A CAUSE FOR MODIFICATION

The Permittee shall submit a new application, or a supplement to the previous application, along with required engineering plans and reports, whenever a new or increased discharge or change in the nature of the discharge is anticipated which is not specifically authorized by this permit. This application shall be submitted at least 60 days prior to any proposed changes. Submission of this application does not relieve the Permittee of the duty to comply with the existing permit until it is modified or reissued.

G5. PLAN REVIEW REQUIRED

Prior to constructing or modifying any wastewater control facilities, an engineering report and detailed plans and specifications shall be submitted to the Department for approval in accordance with Chapter 173-240 WAC. Engineering reports, plans, and specifications should be submitted at least 180 days prior to the planned start of construction. Facilities shall be constructed and operated in accordance with the approved plans.

G6. COMPLIANCE WITH OTHER LAWS AND STATUTES

Nothing in the permit shall be construed as excusing the Permittee from compliance with any applicable federal, state, or local statutes, ordinances, or regulations.

G7. DUTY TO REAPPLY

The Permittee must apply for permit renewal at least 180 days prior to the specified expiration date of this permit.

G8. PERMIT TRANSFER

This permit is automatically transferred to a new owner or operator if:

A. A written agreement between the old and new owner or operator containing a specific date for transfer of permit responsibility, coverage, and liability is submitted to the Department;

B. A copy of the permit is provided to the new owner and;

C. The Department does not notify the Permittee of the need to modify the permit.

Unless this permit is automatically transferred according to section A. above, this permit may be transferred only if it is modified to identify the new Permittee and to incorporate such other requirements as determined necessary by the Department.

G9. PAYMENT OF FEES

The Permittee shall submit payment of fees associated with this permit as assessed by the Department. The Department may revoke this permit if the permit fees established under Chapter 173-224 WAC are not paid.

G10. PENALTIES FOR VIOLATING PERMIT CONDITIONS

Any person who is found guilty of willfully violating the terms and conditions of this permit shall be deemed guilty of a crime, and upon conviction thereof shall be punished by a fine of up to ten thousand dollars and costs of prosecution, or by imprisonment in the discretion of the court. Each day upon which a willful violation occurs may be deemed a separate and additional violation.

Any person who violates the terms and conditions of a waste discharge permit shall incur, in addition to any other penalty as provided by law, a civil penalty in the amount of up to ten thousand dollars for every such violation. Each and every such violation shall be a separate and distinct offense, and in case of a continuing violation, every day's continuance shall be and be deemed to be a separate and distinct violation.